

REMARKS

This is a response to the Office Action mailed March 29, 2004. Please consider the attached amended and resubmitted claims and the following remarks.

In the currently amended claims 1-6 "diameter" has been changed to —radius— to be consistent with the specification and with allowed claim 7. A typo error has been changed in claim 6 and a punctuation change has been made in claim 7, at the end of paragraph b), to be consistent with the remainder of the claim. The basic amendment to claim 1 is to emphasize the structural element of the present inventor's tunnel extension.

Claims 1 and 2 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman ('980) in view of Kobayashi et al ('399). Reconsideration of this rejection is respectfully requested. In accord with claim 1 as amended, the tunnel extension of the present invention is a constant radius extension from the position of the propeller within the tunnel to the stern of the boat with the extension being attached to the stern at its trailing end. As shown in FIGs 1 and 4, the extension begins at the location of the propeller at the large end of the conical part of the tunnel and then extends at a constant radius to its connection to the stern of the boat. The purpose and operation of the present invention's extension is to assist in getting the boat to a planing attitude in as short a time as possible. Keeping the tunnel extension at a constant radius increases the surface of the bottom of the boat in contact with the water surface in the area behind the propeller and at the stern of the boat.

As distinguished from the claimed and illustrated extension of the present invention, the Sherman '980 patent has a tunnel with a propeller within the tunnel and an extension that extends at a reduced diameter from the location of the propeller to the stern of the boat. As

stated in Col 7, lines 11-15 the purpose of the reduction in cross-sectional area of the tunnel is to provide a nozzle region having the effect of increasing the velocity of the water drive aft of the propeller. That is much like a "jet" propulsion boat where water velocity moves the boat. Further, in Col. 2, lines 56-61, the Sherman tunnel construction is to provide an open transom for admission of air to enable the propeller to operate with full natural ventilation. The purpose is not to get the boat into planing attitude quickly.

Kobayashi et al '399 has a tunnel that accommodates a propeller with an extension of the tunnel aft of the propeller that increases in area aft of the propeller and at the stern of the boat as shown in FIG 2 and FIG 7. The intended purpose of the tunnel and propeller relationship in Kobayashi et al is to avoid possible contact between the boat propeller and the surfaces under the boat including possible swimming persons. There is no suggestion of the extension of the tunnel from the propeller to the stern at a constant radius and no suggestion that the tunnel construction could assist in getting a boat to a planing attitude in a more efficient manner.

It is respectfully submitted that there is no suggestion in either Sherman '980 or Kobayashi et al '399 that a tunnel extension from the location of a propeller in the tunnel to the stern of the boat would be of assistance in getting the desired forces to operate on the bottom of the boat at the stern to bring the boat to a planing attitude more rapidly. The present invention has been installed on a boat hull and has demonstrated the effect of the constant radius extension from the propeller location in a tunnel to the stern to increase the surface area of the stern in contact with the water as the boat is moved forward under the force of the

propeller. The increased surface produced by keeping the tunnel radius constant to the stern provides more surface in contact with the water and thus decreases the time required to get the boat to its planing attitude.

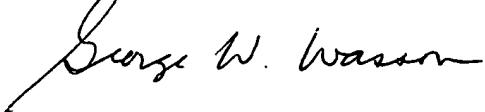
Reconsideration of the rejection of claims 1 and 2 under U.S.C. 103(a) as unpatentable over Sherman '980 in view of Kobayashi et al '399 is respectfully requested.

The amendments to claim 1 are believed to place the claim in condition for allowance. Claims 2-6 depend directly or indirectly from claim 1 and are believed to be allowable as amended or resubmitted.

The allowance of claim 7 is noted.

If a discussion of the claims of this application with Applicant's attorney would be of assistance in the prosecution of this application, the Examiner is requested to contact the attorney at the FAX or telephone number below.

Respectfully submitted,



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